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ABSTRACT

Female (N=142) and male (N=191) college students read one of nine vignettes describing a male and female target character on a heterosexual first date, and then rated each character's desire to have sexual intercourse with the other. The vignettes varied only by the amount of alcohol consumed by each character (none/soft drink, moderate, high). These quantities had been empirically determined for male and female targets via piloting, which revealed that subjects believed it would take more beers to produce both moderate and high levels of intoxication for a male than for a female target. The hypothesis that the female character would be perceived by subjects as experiencing more alcohol-facilitated sexuality than the male character, was not supported. Post hoc analyses suggested that the quantities obtained from the pilot study appeared to have failed to equate male and female targets for intoxication within the present investigation. (Findings are discussed in the context of the relationship between alcohol consumption and sexual aggression, and are presented within a cognitive expectancy framework.)
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Cognitive Expectancies of Alcohol-Facilitated Sexuality

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Poster presented at the Midwestern Psychological Association, Chicago, IL, May, 1991.

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Abstract

Female and male college students read one of nine vignettes describing a male and female target character on a heterosexual first date, and then rated each character's desire to have sexual intercourse with the other. The vignettes varied only by the amount of alcohol consumed by each character (none/soft drink, moderate, high). These quantities had been empirically determined for male and female targets via piloting, which revealed that subjects believed it would take more beers to produce both moderate and high levels of intoxication for a male than for a female target. The hypothesis, drawn from George, Gournic, and McAfee (1988), that the female character would be perceived by subjects as experiencing more alcohol-facilitated sexuality than the male character, was not supported. Post hoc analyses suggested that the quantities obtained from the pilot study appeared to have failed to equate male and female targets for intoxication within the present investigation. Findings are discussed in context of the relationship between alcohol consumption and sexual aggression, and are presented within a cognitive expectancy framework.

Cognitive Expectancies of Alcohol-Facilitated Sexuality

The term schema has been used to describe the structure of knowledge that permits an individual to interpret information. This systematic framework allows people to understand and organize a variety of information about themselves and others. Schemas are used to categorize, explain, and evaluate behavior. Gender, as a schema, is used in this way (Markus, Crane, Bernstein, & Siladi, 1982). Frequently, when people are asked to estimate the likely effects of a given behavior, their answer differs depending upon whether they are evaluating themselves or others (Eisner, 1982).

A growing interest in determining how beliefs or expectancies about the effects of alcohol on social behavior has been evident in the research literature (Leigh, 1987). Cognitive expectancies may primarily determine the causal attributions of individuals (Christiansen, Goldman, & Brown, 1985) and have been shown to be related to behavior in various types of human interaction (Brown, Christiansen, & Goldman, 1987). Many alcohol expectanies appear to be based on male gender stereotypes and people expect others to be more affected by alcohol than themselves (Rohsenow, 1983). Cox and Klinger (1988) suggest that the alcohol consumption of people is based upon their expectancies about the effects of drinking. Thus, expectancies, in addition to pharmacological effects are a major component of the influence of alcohol on human behavior and the interpretation

of drunken behavior (MacAndrew & Edgerton, 1969).

Expectations about the effects of alcohol, whether or not they are consistent with alcohol's pharmacological influences, would seem to be an important component of alcohol's overall effects on sexual behavior and its attribution. A number of investigations support this notion. Wilson (1987) suggests that intoxicated males are more likely to approach females and that males who know their female companion has been drinking tend to feel less social anxiety and to view the female as more receptive to sexual overtures. Critchlow (1986) describes males as more likely to use their consumption of alcohol to lessen their responsibility for behaviors engaged in during and after drinking while females may be more likely to be concerned about the disinhibiting effects of alcohol, given "society's view of drunk women as more sexually available and more to blame for being victimized" (p. 759). Crowe and George (1989) state:

> That there is a relationship between alcohol and sexuality is a matter of consensus. The two are paired throughout poetry, prose, history, and belief (p. 374).

Muehlenhard and Linton (1987) investigated the role of alcohol as a risk factor for date rape and sexual aggression in dating situations. They found that when comparing past dates in which male-against-female sexual aggression occurred to the most recent dates of the sexually victimized women, heavy usage of alcohol by both the woman and her date was more common in the former case. From this, they conclude that:

> alcohol reduces men's inhibitions against violence, provides an excuse for [sexual aggression], and reduces women's

> ability to resist -- suggest[ing] that heavy alcohol or drug use by either person is a risk factor for [sexual aggression] (p. 194).

It is important to realize that even though these investigators imply that alcohol itself (i.e., not alcohol expectancies) causes these reduced inhibitions, such alcoholic effects could be mediated by pharmacology, expectancy, or both. In a discriminant analysis of risk factors for sexual victimization among a national sample of college women, Koss and Dinero (1989) found that women who were raped drank more than women who were not raped. Rape victims reported drinking 1-3 times per month with usually no more than four cans of beer at a single setting; they reported getting drunk less than once a month but more than once a year. Because alcohol consumption was a factor in the Koss and Dinero study, they concluded that:

> The role of alcohol as a risk variable deserves more research. It is possible that alcohol could yield physiological effects to impair the decoding of assault cues or to interfere with organized resistance behaviors (see Russell, 1984). However, it is also possible that alcohol use in this sexualized context functions as a cue that sexually aggressive men see as willingness to have sex and that they use to rationalize away the victim's assertions of nonconsent (p. 249).

Thus, it seems that cognitive expectancy research assessing the perceived role of alcohol consumption upon sexual aggression is needed.

A portion of one such investigation by George et al. (1988) asked subjects to read a vignette that described a young woman and man drinking beverages together (cola, beer, wine, or whiskey). The method of payment was also varied (dutch treat

versus male paying). It was found that females drinking alcoholic beverages were seen as more impaired, aggressive (defined broadly), sexually available, and more likely to engage in foreplay and intercourse than the females drinking a nonalcoholic beverage. Additionally, subjects appeared to have enhanced perceptions,of the target female's sexual availability when the target male paid for the alcoholic beverages. The alcohol drinking female target was also viewed as less attractive than her cola drinking counterpart.

Although informative in many regards, George et al. (1988) had its share of limitations, many of which were pointed out by its authors. The most important one pertaining to the present study concerns their assessment of "alcohol-facilitated sexuality." In addition to the vignette portion of their investigation, George et al. used a modified version of Southwick, Steele, Marlatt, and Lindell's (1981) alcohol expectancy instrument to assess subjects' perceptions of alcohol's effects on "typical young woman" and "typical young man" target characters for both moderate (defined as "enough to produce a noticeable feeling of intoxication, but without drunkenness") and high (defined as "enough to produce a definite feeling of drunkenness -- more than he/she is accustomed to") dosages of alcohol. As predicted, they found that subjects who rated the female drinker expected alcohol to facilitate a greater increase in sexuality for the target than those who rated the male drinker. George et al. (1988) did not, however, employ a

nonalcohol drinking control condition, and thus while they showed that a young woman's sexuality is expected to be more affected than a young man's by an increased consumption of alcohol, they are not justified in stating, "the female drinker was perceived as being more sexual than the male drinker" (p. 1299). Greater change in sexuality was associated with a moderate dose as compared to a high dose of alcohol; however, it would be informative to assess the relationship among a no-alcohol condition, the moderate dose condition, and the high dose condition. Because they never obtained a baseline measure of sexuality (i.e., sexuality apart from the effects of alcohol), it is possible that even though females experience more alcohol-facilitated sexuality, males may still obtain higher overall sexuality scores depending on their sexuality prior to drinking.

The present study is part of a larger one (Skacel, 1990) using vignettes to investigate the role of alcohol expectancies pertaining to sexual interest and sexual aggression in heterosexual first-date interactions. The purpose of the present investigation was to replicate George et al's (1988) finding with regard to subjects' perceptions of alcohol-facilitated sexuality, anchoring key terms such as "sexuality," "moderate amount," "too much," etc., providing a "no-alcohol" condition, and tying subjects' evaluations specifically to the context of a heterosexual first-date situation.

Based upon George et al.'s (1988) finding, it was predicted that the female target drinker would be described by subjects as

experiencing more alcohol-facilitated sexuality than would the male target drinker. Thus, even though the male might be seen as more interested than the female in having intercourse at each alcohol consumption level, the female's sexual interest level would be expected to increase more sharply than the male's from baseline to crest.

Method

Subjects

Two-hundred-and-seven male and 152 female undergraduates served as subjects. Of these, the first 71 females and 149 males received research participation credit for their involvement in the study in partial fulfillment of their introductory psychology course requirements. These subjects were run in groups ranging in size from about 10 to 25 participants. The remaining subjects were recruited on a voluntary basis from upper level psychology classes and were run in groups of about 35 to 55. Subjects who neglected to complete the experimental measures or whose responses to the manipulation checks suggested that they had not read the experimental stimuli carefully were excluded from the analyses. This resulted in a final subject pool of 191 males (of whom 50 were volunteers) and 142 females (of whom 74 were volunteers). These subjects ranged in age from 18 to 35 years (M=20.22, SD=1.86) and in academic class from Freshman to Senior (M=2.51, SD=1.18, indicating that the average participant fell halfway between Sophomore and Junior years).

Materials and Procedure

Subjects were first informed of the purpose of the investigation in both oral and typescript forms. The experimenter then read general instructions aloud as subjects were asked to follow along silently. Next, subjects were asked to work on the experimental materials at their own pace until they turned to a page instructing them to stop and await further instructions. These materials included the demographic information sheet requiring subjects to report their gender, age, class, and weight, and for half of the subjects, a modified version of the Drinking Practices Questionnaire (DPQ) (Cahalan, Cisin, & Crossley, 1969), which was employed to assess subjects' drinking habits.

The remaining subjects completed the DPQ after completing all other experimental materials. This difference in order of presentation was counterbalanced separately for male and female subjects. Once all subjects arrived at the "stopping point," they were instructed to turn to the next page, which contained one of the nine possible typewritten vignettes describing an interaction between two hypothetical people, Diane and Tom. Each subject was given three minutes to read his or her vignette. The basic vignette is an adaptation of one used by George et al. (1988), with modifications made to reduce artifactual gender stereotyping, and by changing the male target character's name from "Bradley" to the more common name of "Tom." Appendix A contains one of the nine vignettes (the version in which both

characters consume a "moderate amount of beer") to provide the reader with the basic plot of the narrative. The vignettes are identical to one another except for two sentences which serve to manipulate Tom's and Diane's beverage choices. Thus, the nine scenarios varied on three levels of alcohol consumption (e.g., none (soft drinks), moderate (a few beers), and high, (several beers)) for each of the two target characters. Specific quantities were placed in parentheses following the terms "few beers" and "several beers" based on the results of a pilot study[1]. Differences between the vignettes are highlighted in summary form in Table 1. The original 359 subjects were first grouped by gender and then randomly assigned to one of the nine vignette conditions.

Following the vignettes, each subject was asked ten questions rated on 7-point scales ranging from "definitely not" (1) to "definitely" (7). These dependent measures served as sex-willingness, rape-rationalization (Muehlenhard, 1988) and sexual aggression ratings, and are found in Appendix B. For the purpose of testing the hypothesis presently under consideration, only questions 1 ("Does Diane want to have sexual intercourse with Tom?") and 2 (Does Tom want to have sexual intercourse with Diane?") were utilized.

As a means of evaluating the vignettes and checking the experimental manipulations, a postexperimental questionnaire was completed by all subjects, asking them to indicate what type of beverage had been consumed by each of the target stimuli and how

Table 1

Vignette Content as Organized in Terms of Female and Male Targets' Beer Consumption Levels

Diane's Alcohol Consumption Level	Tom's Alcohol Consumption Level: None (Soft Drinks)	Moderate (5 Beers)	High (9 Beers)
None (Soft Drinks)	A	B	C
Moderate (3 Beers)	D	E	F
High (7 Beers)	G	H	I

many drinks each consumed. The questionnaire asked them to estimate (on 7-point scales) both Tom's and Diane's levels of intoxication, and how realistic and common the situation in the vignette appeared to be. Subjects were also asked for their definitions of sexual aggressiveness and for any comments or suggestions about the study. As in the pilot study, all materials were coded to protect subject anonymity.

Before dismissal, a modification of Muehlenhard and Linton's (1987) debriefing was given to participants in the present investigation: "Sexual aggression is never justified. When an individual says no, the partner should stop making sexual advances. If intercourse occurs after this point, it is rape."

Results and Discussion

It was predicted that in comparison to the male target, the female target would experience more alcohol-facilitated sexuality. This hypothesis was made given George et al.'s (1988) finding that subjects who rated a female drinker expected alcohol to facilitate a greater increase in sexuality for her than those who rated a male drinker expected for him. Subject responses to Questions 1 (a measure of Diane's desire to have sexual intercourse with Tom) and 2 (a measure of Tom's desire to have sexual intercourse with Diane) served as the dependent variables. Figure 1 depicts the results of this comparison utilizing a 2 X 3 (Target Gender X Target Dosage) design. In order to substantiate the hypothesis, the slope of either the entire lower line in this

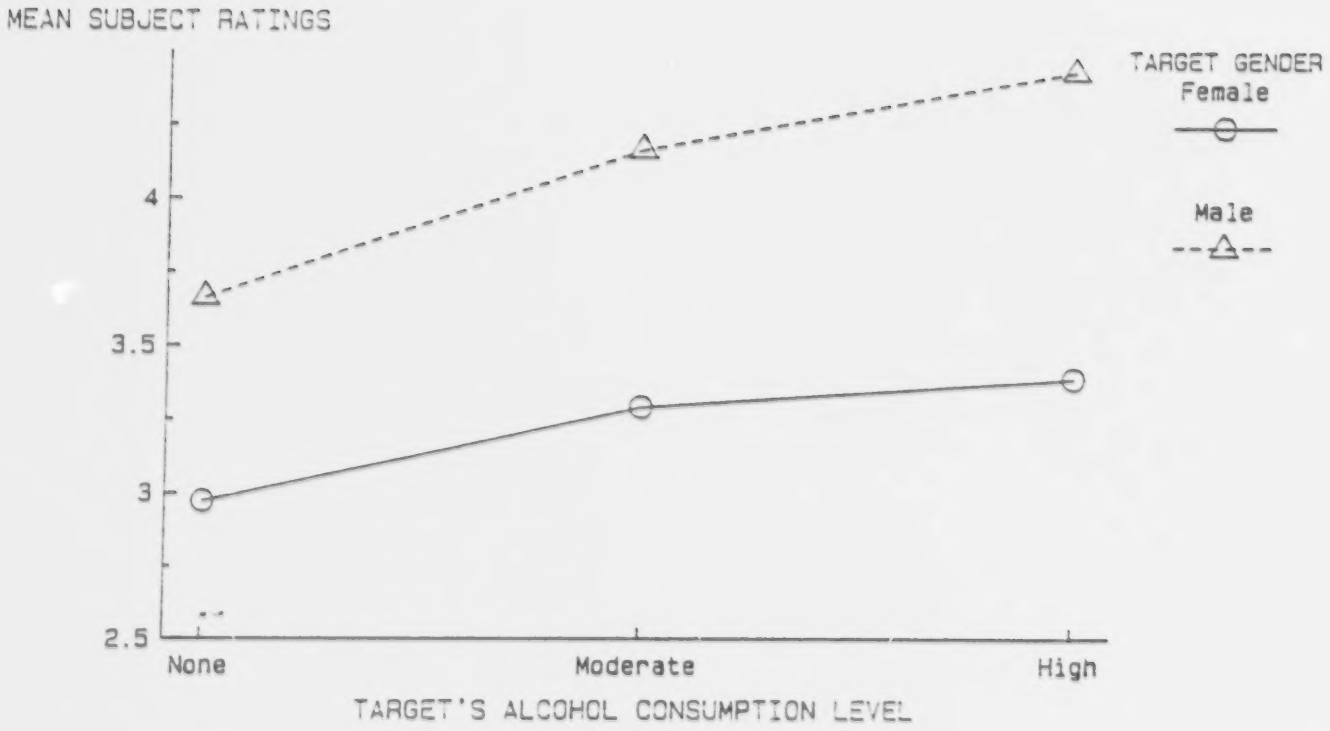

Figure 1.

Subjects' ratings, using all nine vignettes, for how much each target wants to have sexual intercourse with the other.

figure, which represents subjects's perceptions of Diane's interest in having sexual intercourse, or at least one of its two segments would have to be greater than the slope of the upper line and/or its respective segments, which represent perceptions of Tom's interest in sexual intercourse. Visual inspection shows however, that this is clearly not the case. Thus, the hypothesis was not supported and consequently, George et al.'s (1988) finding that "the female drinker was perceived as experiencing more alcohol-facilitated sexuality than the male drinker" (p.1299) was not replicated when the present experimental paradigm was employed. Several reasons might account for this failure to replicate:

1) The subjects within the two experiments may have differed in their definitions of "sexuality."

2) George et al. (1988) accounted for higher alcohol-facilitated sexuality in female targets by suggesting that their results were "consistent with the cultural stereotype" (p.1299). That may be the case, given that those investigators did not provide subjects with any information about their targets except gender; therefore, subjects could impose whatever "structure" upon the situation that they might have chosen. This structure was probably, for many subjects, heavily tainted by cultural stereotypes. By placing targets in the context of a basic vignette that portrayed them in less stereotypical roles than subjects might expect to see in a first-date situation, or perhaps simply by placing targets in a <u>dating</u> situation, the

present study may have evoked a somewhat different and more specific cognitive schemas than that evoked by George et al. Thus, although the trend for higher female target alcohol-facilitated sexuality that George et al. (1988) found may generalize to a variety of situations, it may not apply to those involving a first date, nor to those in which the targets behave in a non-traditional fashion. By not anchoring alcohol-facilitated sexuality to a specific situation, George et al. may have hindered the applicability of their results to first-date situations, which was the apparent intent of their investigation as a whole. By contrast, findings from the present study are more applicable to first-date situations in which the traditional "dominant male - passive female" schema is not followed. It would be interesting to see what trend might emerge in comparing female and male targets' alcohol-facilitated sexuality using George et al.'s (1988) vignette, which cast its characters in traditional roles. Such data might help explain whether the failure to find greater alcohol-facilitated sexuality among female targets than male targets in the present study was due to our minimizing the degree of gender stereotypy of target behaviors or to some influence(s) specific to first-date situations.

3) For the present study, a pilot experiment empirically quantified George et al.'s (1988) definitions of "a moderate amount" and "too much" alcohol for typical young women and men to consume. The intent of doing so was to equate male and female

targets in terms of their intoxication or "consumption levels" (as distinct from volume of alcohol taken in) to allow direct comparison between them in the vignettes for the main investigation. The question then arises as to how successful this empirical method really was in equating male and female targets for intoxication. If unsuccessful, then the possibility exists that perhaps the failure to find higher alcohol-facilitated sexuality for the female target was due to an "undoing" of the intoxication equivalence that George et al. established in their first study. In other words, if quantifying the amount of alcohol consumed by each target caused one to be viewed as more intoxicated than the other at any given level of consumption, this could contribute to the failure to find higher alcohol-facilitated sexuality for Diane than Tom.

To test this possibility, a 2 X 2 mixed analysis of variance was conducted with Consumption Level (moderate versus high) as the between-subjects factor, Target Gender as the within-subjects factor, and subject ratings of each target's level of intoxication as the dependent variable. Only data from vignettes E and I were used in order to allow direct comparison of targets' intoxication when both consumed the same level of alcohol.[2] The 2 X 2 ANOVA that was employed revealed a Consumption Level X Target Gender interaction, $F(1,68) = 30.38$, $p < .001$. Analysis of simple effects (ANOSE) uncovered that in addition to an expected greater intoxication with increased consumption for all targets, male and female targets were thought to differ significantly in

their degrees of intoxication at both consumption levels, with males as compared to females being rated as experiencing greater intoxication at the moderate consumption level, $F(1,33.97)= 13.83$, $p<.01$, and females attaining greater intoxication than males at the high consumption level, $F(1,33.97)= 16.79$, $p<.01$ (see Figure 2). Although the difference found at the high consumption level could be explained by rounding error.[3] The intoxication difference at the moderate level is puzzling. These results suggest that although empirical quantification of beers consumed by each target may represent an improvement over merely using the words "few" or "several" in equating targets for intoxication, full equivalence was not achieved from a statistical standpoint. This finding highlights the complexity associated with considering individual differences in the evaluation of cognitive expectancies of subjects estimating characteristics and/or behaviors of others.

In spite of the absence of a definitive explanation for the failure to replicate George et al.'s (1988) finding with regard to target gender effects for expected alcohol-facilitated sexuality, a clear need for replication using these and other measures of sexuality in varying contexts is indicated. Generalization of results should therefore be made with great caution at this point in time.

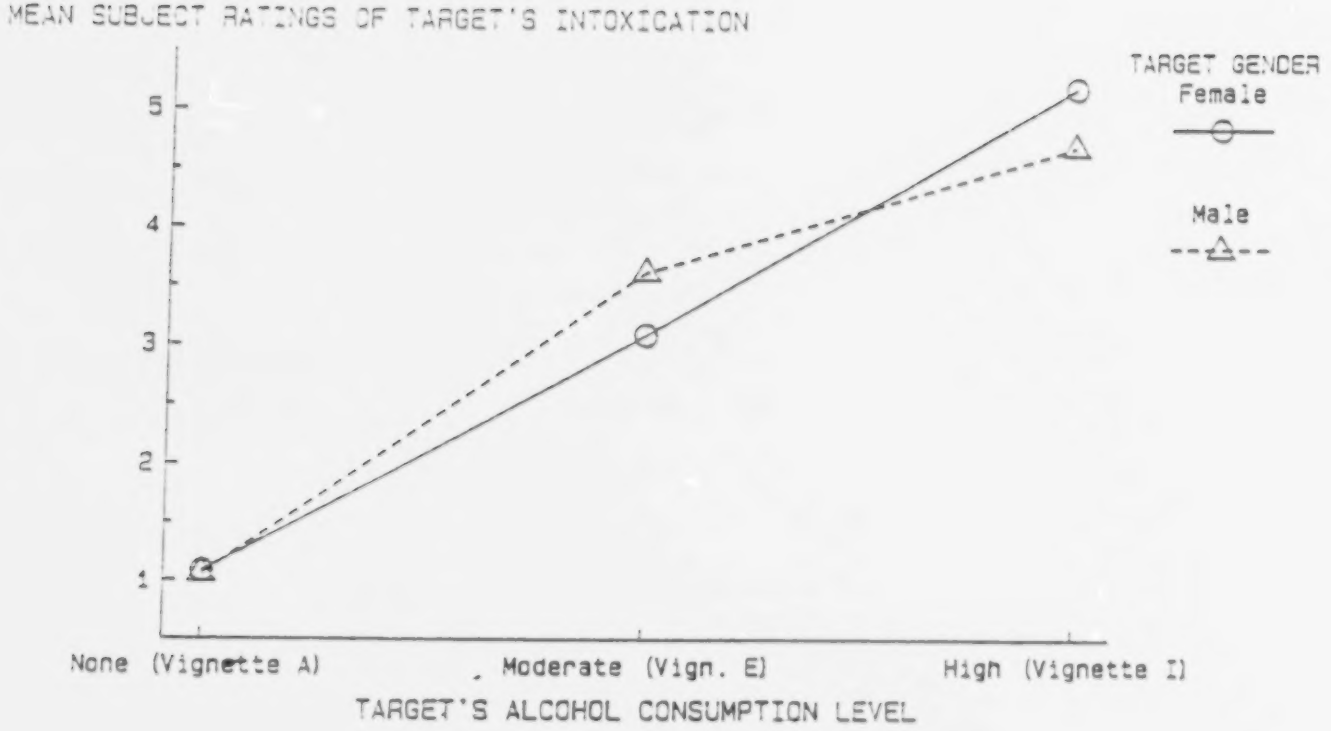

Figure 2

Subjects' ratings of male and female targets' intoxication levels for vignettes in which both targets consumed equivalent levels of alcohol.

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Appendix A: Sample Vignette

Tom and Diane, both in their mid-twenties, had met recently at a party given by a mutual friend. They spent most of the party talking and dancing with each other, and when the evening was over, they made plans to get together on Friday. When Friday finally came, each was anxious, eager to make a good impression, and hopeful that everything would go smoothly. When Diane and Tom saw one another, each smiled in approval. The tavern was fairly crowded when they arrived, but they managed to find a cozy booth towards the back. Initially, they seemed a little uneasy and made a lot of small talk about the weather and the day's happenings. When the waitress came, Tom and Diane each ordered a beer. As the evening progressed, they both became more talkative, freely expressing their views on movies, books, school, politics, and any other topic that came up between them. Their conversations flowed easily and they genuinely seemed to enjoy each other's company. By the end of the evening, they felt like old friends. After Diane and Tom each had a few more beers (about 2 for Diane and 4 for Tom), it was getting late, so they decided to call it a night and left the tavern together.

Appendix B: Dependent Measures

Please answer the following questions as they pertain to the story you just read. Respond as if the story were a real situation. Please read each question carefully and indicate your response by circling one of the seven numbers that range from "definitely not" (1) to "definitely" (7). Be certain to circle only one number for each question.

(1) Does Diane want to have sexual intercourse with Tom?

1 2 3 4 5 6 7
definitely not definitely

(2) Does Tom want to have sexual intercourse with Diane?

1 2 3 4 5 6 7
definitely not definitely

(3) Does Tom think that Diane wants to have sexual intercourse with him?

1 2 3 4 5 6 7
definitely not definitely

(4) Does Diane think that Tom wants to have sexual intercourse with her?

1 2 3 4 5 6 7
definitely not definitely

(5) Will Diane be sexually aggressive?

1 2 3 4 5 6 7
definitely not definitely

(6) Will Tom be sexually aggressive?

1 2 3 4 5 6 7
definitely not definitely

(7a) If Diane did not want to have intercourse with Tom, would he force her to?

1 2 3 4 5 6 7
definitely not definitely

(b) Would Tom be justified in doing this?

1 2 3 4 5 6 7
definitely not definitely

(8a) If Tom did not want to have intercourse with Diane, would she force him to?

1 2 3 4 5 6 7
definitely not definitely

(b) Would Diane be justified in doing this?

1 2 3 4 5 6 7
definitely not definitely

NOTES

[1]A pilot study was conducted to provide an empirical means of quantifying college student subjects' perceptions of how much beer constitutes a "moderate amount" and "too much" for a typical young woman and typical young man to drink. Twenty-one men and 21 women undergraduates enrolled in an introductory psychology course served as subjects. Each received research participation credit for her or his involvement in the study. Subjects were run in two groups of approximately equal size over a two-day period. They completed a demographic information sheet and were then asked, in written form, to estimate the number of beers that constitute "a moderate amount (enough to produce a noticeable feeling of intoxication, but without drunkenness)" and "too much (enough to produce a definite feeling of drunkenness -- more than he/she is accustomed to)" for a "typical young woman" and "typical young man" to consume over the course of one evening. For each of their responses, subjects were told to provide a single number estimate instead of a range. Half of the male subjects and half of the female subjects rated the female target first, and the other half of each group rated the male target first. All materials were coded in order to protect subjects' anonymity.

Mean subject estimates for a moderate amount were 5.31 (SD=2.00) and 3.26 (SD=1.21) beers for a typical young man and typical young woman, respectively. On average, subjects also estimated that 9.45 (SD=3.30) beers for young men and 6.57 (SD=1.94) beers for young women would constitute "too much." Thus, for the main investigation, Tom consumed five beers in the moderate consumption conditions and nine in the high consumption conditions. Diane, however, drank three beers in the moderate conditions and seven in the high conditions.

[2]Vignette A was not included in the analysis because targets in that vignette condition consumed soft drinks only. Subjects almost universally rated them as "completely sober;" therefore, inclusion of Vignette A would violate the assumption of homogeneity of variance, which would be inappropriate.

[3]The mean value of subject estimates of the number of beers required to constitute "too much" was rounded down for male targets and up for female targets to approximate the nearest whole number values for use in the vignettes-- which should produce higher intoxication for females than males.